CONCLUSIONS: Despite the higher acquisition cost, thromboprophylaxis with dalteparin is cost-efficacious versus warfarin in preventing DVT after THR.

CV3

A COST COMPARISON STUDY OF AMLODIPINE AND ENALAPRIL AS TREATMENT FOR HYPERTENSION IN THE UNITED STATES

Doyle J, Arikian S, Casciano J, Amsel A, Casciano R
The Analytica Group, New York, NY, USA

OBJECTIVES: To compare the cost-effectiveness for treatment of mild and moderate hypertension using either amlodipine or enalapril in the United States. The study is based on data from a randomized controlled clinical trial, conducted with 461 patients.
METHODS: We used the raw data from a one-year, double blind clinical trial of amlodipine versus enalapril to quantify the treatment dosages associated with each patient group. The amlodipine group consisted of 231 patients, and the enalapril group included 230 patients. Within the clinical trial, there were no between group significant differences for age, gender, concomitant medications and current illness at randomization. Mean dosages of amlodipine and enalapril, as well as the frequency and dosage of diuretic use, were calculated between groups based on age, gender and study phase, and were used to estimate the cost of treatment. Efficacy and adverse event rates were also calculated for each group to compare the outcomes of the therapy.
RESULTS: Amlodipine ($551.62 per patient annual drug treatment cost) was less expensive in treating the hypertensive patients within the study as compared to enalapril ($663.48 per patient annual drug treatment cost). Furthermore, a drug price sensitivity test found that with as much as a 17% reduction in the cost of enalapril, amlodipine would remain a lower or equivalent treatment in terms of cost. The mean final visit dose amounts of drug per patient were 7.2 mg/day for amlodipine, and 28 mg/day enalapril. The total reduction in sitting DBP was 16.9 mmHg with amlodipine and 16.2 mmHg with enalapril. However, significantly ($p < 0.05$) more patients in the enalapril group ($n = 46$, 20%) required the use of a diuretic (HCTZ) to attain control of DBP than in the amlodipine group ($n = 27$, 11.7%). Finally, there were no significant differences ($p < 0.05$) in adverse events between groups (amlodipine = 21.2%; enalapril = 17.4%). Yet, the type of adverse event differed by drug where a significant effect ($p < 0.001$) of amlodipine and edema (15.2%) was found, and a significant effect ($p < 0.001$) for enalapril and cough (7.4%) was found.
CONCLUSION: This study suggests that amlodipine is a less costly therapy compared to enalapril, and hence a potentially more cost-effective treatment for mild and moderate hypertension.

CV4

THE COST OF HYPERTENSION AND ITS CORRELATES IN EMILIA ROMAGNA REGION (ITALY): RESULTS FROM THE GREAT STUDY

Ambrosioni E[1], Belisari A[2], Bustacchini S[3], Costa FV[1], Greco S[2], Ruffo P[3], Mantovani LG[2] and the GREAT (GRoup on Economic Assessment of hyperTension) investigators
[1]Clinica Medica III, Policlinico S. Orsola, Universita di Bologna, Bologna, Italy; [2]Centro di Farmacoeconomia, Instituto di Scienze Farmacologiche, Universita di Milano, Milan, Italy; [3]Pfizer Italiana, Rome, Italy

OBJECTIVE: Evaluation of the economic impact of hypertension and its correlates.
METHODS: Twenty-seven GPs and 9 specialist centers participated in this longitudinal study. Information on lifestyle, SBP, DBP, comorbidities, diagnostic and lab exams, hospitalizations, physician's visits, drug and medical therapies was collected. We report on healthcare costs (hospitalizations excluded), quantified in the perspective of the Italian National Health Service (NHS), by means of tariffs expressed in Italian Lire 1998, and referred to a three-month period. We used multivariate linear regression to investigate the association between healthcare costs, drug cost (or proper transformations) and the level of SBP and DBP. $P < 0.05$ were considered statistically significant.
RESULTS: 416 patients were assessed, 210 women (mean age 63 ± 15) and 206 men (61 ± 12). The mean levels of SBP and DBP were 149 ± 11 and 90 ± 9 mmHg for men and 149 ± 15 and 88 ± 9 mmHg for women. The total three months cost of hypertension care was Lit 294.221 for men and Lit 253.938 for women (NS, Mann Whitney U test). Drugs represented the largest part of costs (58%), possibly due to the short time span. We found that new patients tend to be less costly ($P = 0.006$). Patients enrolled by specialists centers ($P < 0.001$); patients with comorbidities ($P < 0.001$); smokers ($P = 0.002$) and previously hospitalized patients were more costly ($P < 0.001$). No influence of age and sex was detected. The health care cost of hypertension was associated with the level of SBP ($P = 0.007$) and DBP ($P < 0.001$). The cost of drug therapy was significantly higher in patients with higher SBP and DBP levels ($P < 0.001$ and $P = 0.005$ respectively).
DISCUSSION: Hypertension is a quite costly disease. Healthcare costs of hypertension and the costs of antihypertensive drug therapy are associated with the level both of SBP and DBP. Interventions effective in controlling SBP and DBP are likely to affect costs.

CV5

SIMULATED LIFETIME COSTS TO NATIONAL HEALTH SERVICE (NHS) OF BIOLOGICAL AND MECHANICAL HEART VALVE REPLACEMENT IN YOUNGER VERSUS OLDER PATIENTS

Griffiths R, Duff S, Prosek B, Llana T
Covance Health Economics and Outcomes Services Inc., Washington, DC, USA